FARM MANAGEMENT

Beef Backgrounding Costs

MARKETING AND FARM BUSINESS MANAGEMENT

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FARM MANAGEMENT

October, 2003

Estimates Based on 500 Head for 500 – 900 lbs.

Livestock values in this document may be subject to change as the market responds to the BSE situation. However, it is important to base your decisions not only on market information, but also on the cost of production for your particular operation.

This guide is designed to provide you with planning information and a format for calculating costs of production of a cow calf enterprise. The production costs included in this enterprise budget are not intended as a cost study of the beef industry in Manitoba. Adjustments will be necessary when applying these figures to your own enterprise.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Productivity and performance assumptions are based on data supplied by specialists as well as data collected from certain producers. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced ration is being fed, livestock are on a herd health program and handling facilities are included.

The guideline can be useful for comparison purposes. Comparison of costs at different levels of production can be made with other farms; the farm over time to track profits or losses; or comparing the plan with the actual production at the end of the planning period.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAF Farm Management Specialist or Livestock Specialist.

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Backgrounding Cattle Production Cost Summary, September, 2003

A. Operating Costs	Cost/Head	Total Cost	Your Cost
1. Feed Costs			
1.01 Ground Barley	54.17	27,085	
1.02 Barley Silage	76.16	38,080	
1.03 Hay	2.80	1,400	
1.04 Supplement	20.32	10,160	
Total Feed Costs	**$153.45**	**$76,725**	
2. Other Operating Costs			
2.01 Feeder Cost	561.25	280,625	
2.02 Straw	7.04	3,520	
2.03 Veterinary Medicine & Supplies	16.12	8,060	
2.04 Annual Fuel & Repair Costs	4.66	2,332	
2.05 Utilities	3.60	1,800	
2.06 Feeder Selling Cost	27.00	13,500	
2.07 Insurance	5.06	2,530	
2.08 Manure Removal	6.00	3,000	
2.09 Barn & Office Supplies	0.40	200	
2.10 Death Loss	9.89	4,946	
Subtotal Operating Costs	794.48	397,238	
2.11 Operating Interest	16.34	8,171	
Total Operating Costs	**$810.82**	**$405,409**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	5.29	2,645	
3.02 Machinery & Equipment	12.00	6,000	
4. Investment			
4.01 Buildings	1.62	810	
4.02 Machinery & Equipment	2.25	1,125	
Total Fixed Costs	**$21.16**	**$10,580**	
Total Operating and Fixed Costs	**$831.98**	**$415,989**	
C. Labour	$20.00	$10,000	
Total Cost of Production	**$851.98**	**$425,989**	
Cost per lb of gain sold	**$/cwt**		
Feed Costs	$44.35		
Operating Costs	$75.38		
Operating & Fixed Costs	$81.50		
Total Costs	$87.28		
Breakeven Selling Price			
Operating Costs	$95.84		
Operating & Fixed Costs	$98.34		
Total Costs	$100.71		
Breakeven Purchase Price			
Operating Costs	$117.04		
Operating & Fixed Costs	$112.80		
Total Costs	$108.80		

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Assumptions

1. Average daily gain (ADG) was assumed to be 2.5 lbs/day.
2. It was assumed the feeder steer weighed in at 500 lbs. shrunk weight, and was raised to 900 lbs (846 lbs after 6 % shrink).
3. Days on feed was 160.
4. Investment in facilities and equipment was assumed to handle 500 head.

Backgrounding Cattle Production Cost Worksheet

A. Operating Costs			Your Cost
1. Feed Costs			
1.01 Ground Barley			
	160	days on ground barley	
x	6.50	lbs/feeder/day	
=	21.7	bushels fed	
x	$2.50	/bu	
=	**$54.17**	**/feeder**	
1.02 Barley Silage			
	160	days on silage	
x	34	lbs/feeder/day	
=	2.72	tons fed	
x	$28.00	/ton	
=	**$76.16**	**/feeder**	
1.03 Hay			
	15	days on hay	
x	5.0	lbs/feeder/day	
=	0.04	tons fed	
x	$70.00	/ton	
=	**$2.80**	**/feeder**	
1.04 Supplement(Salt,Minerals,Vitamins, Ionophore)			
	160	days on supplement	
x	1.00	lbs/feeder/day	
=	0.08	tons fed	
x	$254.00	/ton	
=	**$20.32**	**/feeder**	

2. Other Operating Costs

2.01 Feeder Cattle Cost

Commission	$5.00	/feeder	_____
Trucking-in	$1.25	/cwt	_____
x	500	lbs/feeder	_____
÷	100	lbs/cwt	_____
=	$6.25	/feeder	_____
Feeder	500	lbs/feeder	_____
x	$110.00	/cwt	_____
÷	100	lbs/cwt	_____
=	$550.00	/feeder	_____
Total =	**$561.25**	**/feeder**	_____

2.02 Straw

	4.0	lbs/feeder/day	_____
x	160	days on feed	_____
x	$22.00	/ton	_____
=	**$7.04**	**/feeder**	_____

2.03 Veterinary Medicine & Supplies

Cattle Medication

	$5.40	IBR,BVD,PI3,BRSV,etc.	_____
+	$0.64	Vitamin A-D	_____
+	$3.00	External & Internal Parasites	_____
+	$0.63	Blackleg	_____
+	$1.61	Growth Implants	_____
+	$1.50	Antibiotics	_____
=	$12.78	/feeder	_____

Herd Health Program

Professional Services

	$135.00	/hour charge	_____
x	10.00	hours	_____
÷	500	feeder cattle	_____
=	$2.70	/feeder	_____

Transportation Costs

	$1.00	/km charge	_____
x	80	kilometres	_____
x	4	visits	_____
÷	500	feeder cattle	_____
=	$0.64	/feeder	_____

Total =	**$16.12**	**/feeder**	

2.04 Annual Fuel & Repair Costs

	$832.00	repairs	
+	$1,500.00	fuel costs	
+	500	feeder cattle	
=	**$4.66**	**/feeder**	

2.05 Utilities

	$1,800.00	cost/year	
+	500	feeder cattle	
=	**$3.60**	**/feeder**	

2.06 Feeder Selling Cost

Trucking

	900	lbs/feeder	
+	100	lbs/cwt	
x	$1.25	trucking cost/cwt	
=	$11.25	/feeder	

Selling Commission

	$15.00	commission	
+	$0.75	insurance	
=	$15.75	/feeder	

Total =	**$27.00**	**/feeder**	

2.07 Insurance

	$133,790	building & equipment investment	
x	$0.50	/$100 capital	
÷	100	/$100	
÷	500	feeder cattle	
=	$1.34	/feeder	
	$362,500	herd investment	
x	$0.50	/$100 capital	
÷	100	/$100	
÷	500	feeder cattle	
=	$3.63	/feeder	
	$45.00	additional coverage for liability	
+	500	feeder cattle	
=	$0.09	/feeder	

Total =	**$5.06**	**/feeder**	_____

2.08 Manure Removal

	$3,000	annual removal cost	_____
+	500	feeder cattle	_____
=	**$6.00**	**/feeder**	_____

2.09 Barn & Office Supplies

	$200.00	total barn expenses	_____
+	500	feeder cattle	_____
=	**$0.40**	**/feeder**	_____

2.10 Death Loss

	$561.25	feeder cattle cost	_____
+	$757.58	maximum value	_____
+	2	average	_____
x	1.50	% mortality rate	_____
=	**$9.89**	**/feeder**	_____

2.11 Operating Interest

(Operating interest is charged on one half the subtotal operating costs)

	$561.25	feeder cost	_____
+	$116.61	½ of feed & other costs	_____
x	5.50	% operating interest	_____
x	160	days on feed	_____
+	365	days /year	_____
=	**$16.34**	**/feeder**	_____

Capital Costs

Buildings,Corrals & Water System		
Windbreak fence	$4,200	
Pens	$3,542	
Handling Facilities	$4,000	
Waterers	$4,000	
Gates	$1,280	
Feeders	$1,500	
Bunk Feeders	$18,768	
Well & Pressure System	$3,500	
Grain Bin	$3,000	
Landscaping	$15,000	
Total	**$58,790**	
Machinery & Equipment		
Tractor & Loader	$50,000	
Miscellaneous	$25,000	
Total	**$75,000**	
Total Investment	**$133,790**	

B. Fixed Costs

3. Depreciation $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings

	$58,790	original cost	
-	$5,879	salvage value	
÷	20	years useful life	
÷	500	feeder cattle	
÷	1.0	turns/year	
=	**$5.29**	**/feeder**	

3.02 Machinery & Equipment

	$75,000	original cost	
-	$15,000	salvage value	
÷	10	years useful life	
÷	500	feeder cattle	
÷	1.0	turns/year	
=	**$12.00**	**/feeder**	

4. Investment $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Buildings

	$58,790	original cost	_____
+	$5,879	salvage value	_____
÷	2	average	_____
x	2.50	% investment rate	_____
÷	500	feeder cattle	_____
÷	1.0	turns/year	_____
=	**$1.62**	**/feeder**	_____

4.02 Machinery & Equipment

	$75,000	original cost	_____
+	$15,000	salvage value	_____
÷	2	average	_____
x	2.50	% investment rate	_____
÷	500	feeder cattle	_____
÷	1.0	turns/year	_____
=	**$2.25**	**/feeder**	_____

C. Labour

	2.0	hours/feeder/year	_____
÷	$10.00	/hour	_____
=	**$20.00**	**/feeder**	_____

Breakeven Calculations

Cost per lb of gain sold (shrunk weight)			
Feed Costs		$153.45	feed cost
	+	346	lbs gained weight
	=	**$0.44**	**/lb (gain sold)**
Operating Costs		$810.82	operating costs
	-	$550.00	feeder cost
	+	346	lbs gained weight
	=	**$0.75**	**/lb (gain sold)**
Operating & Fixed		$831.98	operating & fixed costs
	-	$550.00	feeder cost
	+	346	lbs gained weight
	=	**$0.81**	**/lb (gain sold)**
Total Costs		$851.98	operating & fixed costs
	-	$550.00	feeder cost
	+	346	lbs gained weight
	=	**$0.87**	**/lb (gain sold)**
Breakeven selling price (shrunk weight)			
Operating Costs		$810.82	operating costs
	+	846	lbs shrunk weight
	=	**$0.96**	**/lb**
Operating & Fixed		$831.98	operating costs
	+	846	lbs shrunk weight
	=	**$0.98**	**/lb**
Total Costs		$851.98	operating costs
	+	846	lbs shrunk weight
	=	**$1.01**	**/lb**
Breakeven purchase price (shrunk weight)			
Operating Costs		846	lbs shrunk weight
	x	$100.00	$/cwt selling price
	=	$846.00	income
	-	$260.82	operating less feeder cost
	÷	500	lbs purchase weight
	=	**$1.17**	**/lb**

Operating & Fixed		846	lbs shrunk weight
	x	$100.00	$/cwt selling price
	=	$846.00	income
	-	$281.98	op. & fixed less feeder cost
	÷	500	lbs purchase weight
	=	**$1.13**	**/lb**
Total Costs		846	lbs shrunk weight
	x	$100.00	$/cwt selling price
	=	$846.00	income
	-	$301.98	total less feeder cost
	÷	500	lbs purchase weight
	=	**$1.09**	**/lb**

For more information contact your local Manitoba Agriculture and Food Office.

Prepared by:

Peter Blawat
Farm Management

John Corbey
Farm Management

Bob Gwyer
Farm Management

Michael Buchen
Feedlot Specialist

John Popp
Livestock Specialist

Lyle McNichol
Livestock Specialist

Dennis Hodgson
Farm Management

Backgrounding Feedlot Facilities